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The Role of Investment Bankers in M&As : New Evidence on Acquirers' Financial Conditions

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Abstract

This paper investigates whether top-tier M&A investment bankers (financial advisors) create value for acquirers with different financial conditions in both the short and long term via analyzing 2860 completed US deals during 1990–2009. Our results show that top-tier investment bankers improve constrained acquirers' short- (5 days) and long-term (36 months) performance by 1.17% and 13.67% respectively, after controlling for firm, deal and market characteristics. Constrained acquirers advised by top-tier investment bankers pay the lowest bid premiums, while unconstrained acquirers that retain top-tier investment bankers pay the highest advisory fees. Our findings imply that constrained acquirers tend to retain top-tier investment bankers to gain superior synergy, while unconstrained acquirers appear to retain top-tier investment bankers to ensure the deal completion.

JEL Classification: G14; G34.

Keywords: Mergers and acquisitions; Investment Banker; Financial constraint; Firm performance.

1. Introduction

In this paper, we investigate whether top-tier merger and acquisition (M&A) investment bankers (financial advisors), ranked by deal value, can help their clients outperform in both the short and long term, controlling for acquirer financial conditions. We categorize acquirers into three groups based on their financial conditions: constrained, neutral, and unconstrained. We show that top-tier investment bankers create value in both the short and long term, but only for constrained acquirers.

Top-tier investment bankers charge much higher advisory fees and are supposed to provide their clients with superior service (Golubov et al., 2012). However, the empirical evidence on this reputation–quality mechanism remains inconclusive. The majority of studies find that acquirers advised by top-tier advisors do not outperform those advised by non-top-tier advisors and may even obtain negative abnormal returns (Michel et al., 1991; Servaes and Zenner, 1996; Rau, 2000; Hunter and Jagtiani, 2003; Ismail, 2010).

In contrast, several researchers argue that top-tier advisors are associated with superior skills in identifying synergistic targets and securing a larger proportion of synergy for their clients. Therefore, top-tier advisors are capable of improving acquirer performance (Bao and Edmans, 2011; Golubov et al., 2012). Additionally, a higher reputation is associated with a higher market share. To maintain this market share, top-tier advisors must therefore maintain their reputation, which is achieved by providing superior service.

Previous literature shows that acquiring shareholders in general do not gain from M&A deals or even destroy firm value (Moeller et al., 2004), despite the fact that majority of the deals are advised by investment banks (Golubov et al., 2012). Overconfidence of acquirers' CEOs has been a popular appeal as an explanation of why acquirers are in general on the losing end of M&A games (Roll, 1986; Doukas and Petmezas, 2007; Malmendier and Tate, 2008; Croci et al., 2010). CEO overconfidence also relates to acquirers' financial status. Specifically, CEOs of unconstrained acquirers tend to be overconfident (Malmendier and Tate, 2005, 2008). Acquirers with sufficient internal resources are more likely to conduct mergers, while

they tend to forgo mergers if external finance is required (Jensen, 1986; Harford, 1999). Therefore, acquirers with different financial conditions exhibit different behaviors, which helps to explain the inconclusive evidence on the role of investment bankers in the M&A deals. In particular, overconfident acquirers with abundant internal resources are likely to overestimate the returns generated internally and believe outsiders undervalue their firms, and therefore, they do not rely on investment bankers to obtain synergistic gains, and employ top-tier advisors solely to pursue deal completion. In contrast, acquirers with financial constraints do not have abundant internal funds to finance M&A deals, and high financing costs force constrained firms to make acquisition decision rationally and carefully. Therefore, constrained acquirers are likely to retain top-tier advisors to obtain acquisition synergy.

These conjectures are strongly supported by our empirical results. Investigating a large sample of US M&A deals over the 1990–2009 period, we show that top-tier investment bankers help financially constrained acquirers gain significant abnormal returns in both the short and long term. In contrast, the effects of top-tier investment bankers are insignificant for unconstrained and neutral acquirers, which is consistent with most of previous literature¹. In addition, unconstrained acquirers who retain top-tier advisors pay highest advisory fees. However, overpayment does not translate into stronger bargaining power. These results suggest that constrained acquirers retain top-tier advisors in order to gain superior performance, whereas unconstrained acquirers retain top-tier advisors simply for the reason of deal completion.

This research contributes to the M&A literature in the following two aspects. First, this paper sheds new light on puzzling empirical evidence on the effects of top-tier investment bankers. We highlight that the effects of top-tier advisors are sensitive to acquirer financial conditions. By examining abnormal returns to acquirers in different advisor–constraint groups, we provide novel evidence on the impact of top-tier advisors on acquirer performance. In particular, we find that top-tier advisors create value for their clients, but only if their clients are financially constrained acquirers. Second, most studies² only focus on investment bankers’ effects on acquirer performance in the short term. We argue that merger synergies should be realized in

¹ See Michel et al. (1991); Servaes and Zenner (1996); Rau (2000); Hunter and Jagtiani (2003); Ismail (2010).

² See Bowers and Miller (1990); Michel et al. (1991); McLaughlin (1992); Servaes and Zenner (1996); Kale et al. (2003); da Silva Rosa et al. (2004); Walter et al. (2008); Schiereck et al. (2009); Ismail (2010); Bao and Edmans (2011); Golubov et al. (2012).

the long term and eventually perceived by the market. Therefore, this paper simultaneously investigates the effects of advisors on acquirer performance in both the short and long term.

Our findings also have important implications for practitioners. Acquirers who retain top-tier advisors pay lower bid premiums and outperform acquirers advised by non-top-tier advisors in both the short and long term, although higher advisory fees are charged. However, we emphasize that the positive effects of top-tier investment bankers are offset by acquirers' overconfidence. Stock markets reward acquirers who make acquisition decisions rationally and elaborately.

The remainder of this paper is organized as follows. Section 2 reviews the literature and constructs the main hypothesis. Section 3 presents the data selection procedure and methodology. Section 4 discusses the empirical results. Robustness tests are carried out in Section 5. Section 6 concludes this paper.

2. Literature review and hypothesis

The role of investment bankers in the M&A markets has been highlighted by an increasing number of researchers. The majority of these studies show that the retention of top-tier advisors, as measured by market share or reputation, does not significantly improve acquirer performance and can even result in negative market reactions. Michel et al. (1991) find that Drexel Burnham Lambert, one of the less prestigious banks, helps its clients earn the highest announcement abnormal returns, while First Boston, Bulge Bracket, achieves the poorest performance. In other words, bank reputation does not relate to better takeover performance. Servaes and Zenner (1996) show that acquirer announcement returns do not differ across in-house deals and deals advised by investment banks. The differences in announcement returns between acquirers advised by top-tier and non-top-tier advisors are also insignificant.

Rau (2000) finds that acquirers advised by top-tier investment banks obtain higher announcement abnormal returns in tender offers but lower announcement abnormal returns in mergers compared to acquirers advised by lower-tier investment banks. Furthermore, in both mergers and tender offers advised by top-tier investment banks, the completion rate of value-increasing transactions measured by announcement cumulative abnormal returns (CARs) is not significantly higher than that of value-

decreasing transactions. In contrast, compared to the proportion of tender offers with negative announcement CARs, second-tier banks help acquirers complete a significantly higher proportion of tender offers with positive announcement CARs.

Hunter and Jagtiani (2003) use a unique method employing the difference between the transaction values at the announcement date and the effective date as a proxy for acquisition gains, and suggest that acquisition gains are inversely associated with the retention of top-tier investment bankers. Furthermore, Ismail (2010) reports that acquirers advised by first-tier banks obtain negative announcement returns, whereas second-tier banks help their clients gain positive returns around announcements.

In contrast, the latest evidence suggests that top-tier advisors have superior skills and therefore create value for their clients. Specifically, Golubov et al. (2012) argue that acquirers advised by top-tier advisors outperform acquirers advised by non-top-tier advisors in public acquisitions. The authors find that the retention of top-tier advisors led to \$65.83 million shareholder gains for acquirers, on average, in public acquisitions during 1996–2009. More importantly, their results suggest that the improvement in performance can be attributed to top-tier advisors' skills in identifying synergistic targets and negotiating higher shares of synergies for acquirers.

In fact, acquirer acquisition decision can be affected by CEO overconfidence. Overconfident CEOs are more likely to make acquisitions and overpay targets (Roll, 1986; Hayward and Hambrick, 1997; Hietala et al., 2003). Doukas and Petmezas (2007) and Croci et al. (2010) find that overconfident acquirers underperform rational acquirers. Additionally, Malmendier and Tate (2008) find that financially unconstrained firms are more likely to exhibit overconfidence and overconfident CEOs tend to conduct value-destroying acquisitions, while firms with financial constraints are reluctant to raise external capital and forgo mergers if external finance is required. Therefore, overconfidence of CEOs together with acquirer financial conditions plays a significant role in explaining acquirer performance.

In addition to the overconfidence hypothesis, Jensen (1986) introduces the free cash flow hypothesis and argues that firms with excess cash reserves tend to make value-decreasing takeover deals. Smith and Kim (1994) investigate the influence of free cash flow and financial slack on announcement abnormal returns. Their study shows

that acquirers with high free cash flow obtain significantly negative announcement abnormal returns, whereas slack-poor acquirers gain significantly positive announcement abnormal returns. The returns to acquirers are highest in the acquisition of high free cash flow targets by slack-poor acquirers.

Furthermore, Harford (1999) examines whether excess cash holdings stimulate top management to conduct takeover transactions and whether such deals (made by cash-rich acquirers) tend to destroy value. The author finds that cash richness is positively related to the probability of being an acquirer, but negatively related to acquirer announcement returns. Additionally, the post-merger long-term abnormal operating performance of both cash-rich and cash-poor acquirers is significantly negative and insignificant, respectively. In other words, cash-rich companies tend to conduct value-destroying takeovers.

According to the aforementioned literature, CEO overconfidence and acquirer financial constraints appear to determine acquirer motivations for retaining top-tier investment bankers, which in turn influences acquirer performance. In particular, constrained acquirers tend to be less overconfident and therefore making more rational acquisition decisions. If they retain top-tier investment bankers, the purpose should be to gain superior synergy from the M&A deals. In contrast, unconstrained acquirers tend to be more overconfident. They overvalue their firms and overestimate their ability to create synergy (identify synergistic targets), and therefore, they retain top-tier advisors mostly to complete their intended deals for whatever reasons. Overall, we construct the following hypothesis:

H1: For constrained acquirers only, the retention of top-tier investment bankers is positively related to acquirer performance in both the short and long term.

3. Data and methodology

3.1. Sample selection

This paper analyzes a sample of US M&As announced over the January 1990 - December 2009 interval from Thomson One Banker. The original sample includes 178,839 deals. Acquirers are required to be public and targets are required to be public, private, or subsidiaries. Using these criteria yields a sample of 97,343 deals. Takeover transaction values are required to be greater than or equal to \$1 million, yielding a

sample of 53,646 deals. Since this research pays attention to both the short- and long-term performance of acquisitions, deal status data are required to be complete, which leads to a sample of 35,263 deals. Regulated industries such as financial and utility firms (Standard Industrial Classification codes 6000–6999 and 4900–4999, respectively) are excluded, yielding a sample of 25,099 deals. Bankruptcy acquisitions, going-private transactions, leveraged buyouts, liquidations, repurchases, restructurings, reverse takeovers, and privatizations are excluded from the sample, leaving a panel of 22,701 observations. Since this paper focuses on the effects of investment bankers, acquirers are required to have their advisor information recorded by Thomson One Banker, yielding 5829 deals. To control for deal characteristics, observations are required report transaction value and payment method information to Thomson One Banker, which leaves a sample of 5078 deals. To calculate short- and long-term abnormal returns—using CARs and buy-and-hold abnormal returns (BHARs)—acquirers are required to file sufficient stock price data with the Center for Research in Security Prices (CRSP) database, which leaves a sample of 4367 deals.³ To measure firm characteristics, acquirers are required to have sufficient accounting data in the Compustat database, yielding a final sample of 2860 deals.⁴ In the final sample, 2771 transactions are advised by investment banks, and 89 transactions are in-house deals.

3.2. Methodology

Measure of advisor reputation

Following the method of Golubov et al. (2012), this research uses a binary classification to distinguish between top-tier and non-top-tier advisors. Specifically, the top 10 banks measured by transaction value are classified as top-tier advisors and the others are classified as non-top-tier advisors⁵. Since the eighth and tenth advisors are very similar in transaction values and market shares, this paper uses the top 10 as the cut-off point, unlike the top-eight classification of Golubov et al. (2012).

³ Calculating size-adjusted BHARs also requires data on the book value of equity from the Compustat database.

⁴ This paper uses the KZ index to measure financial constraints. To calculate the KZ index, COMPUSTAT items 1, 6, 8, 9, 14, 18, 19, 21, 24, 25, 34, 60, 74, and 216 are required. Item 8 requires the lag value. Consequently, merely calculating the KZ index generates 1391 missing values.

⁵ Appendix 1 shows the top 25 investment banks ranked by transaction value. Financial advisor league tables were downloaded from Thomson One Banker. The ranking lists for the 1990s and 2000s are presented in Panels A and B, respectively.

To prevent misclassification, this paper also pays attention to takeovers among investment banks. For instance, Lehman Brothers declared bankruptcy in 2008 and was acquired by Barclays Capital the same year. Therefore, deals advised by Barclays Capital before the acquisition of Lehman Brothers (top tier) are classified as being advised by a non-top-tier investment bank, whereas deals advised by Barclays Capital after the acquisition are classified as advised by a top-tier bank. Similarly, First Boston (top tier) was acquired by Credit Suisse in 1990. Travelers Group acquired Salomon Brothers (top tier) in 1998 and subsequently merged with Citicorp the same year, establishing Citigroup.

Measure of financial constraint

This paper uses the Kaplan–Zingales (KZ) index to measure acquirer financial constraints. Using a sample of 49 low-dividend firms from 1970 to 1984, Kaplan and Zingales (1997) investigate the proper measure of firms’ financial constraints. Specifically, they identify constrained and unconstrained firms by analyzing annual reports and management discussions. Subsequently, they consider firm characteristics (ratio of cash flow to capital, Tobin’s Q, leverage, ratio of dividends to capital, and ratio of cash to capital) that relate to financing constraints to estimate an ordered logit regression. The parameters of the regression are used to formulate the KZ index, thereby measuring a firm’s level of financial constraint (Lamont et al., 2001). A higher KZ index indicates a higher level of financial constraint. The KZ index is widely used in research to measure firm financial constraints (Baker et al., 2003; Malmendier and Tate, 2005, 2008).

Following the aforementioned research, we calculate the KZ index using the following formula:

$$KZ_{it} = -1.001909 \times \frac{CF_{it}}{K_{it-1}} + 0.2826389 \times Q_{it} + 3.139193 \times Leverage_{it} \\ - 39.3678 \times \frac{Dividend_{it}}{K_{it-1}} - 1.314759 \times \frac{C_{it}}{K_{it-1}}$$

where CF_{it}/K_{it-1} is cash flow (Compustat item IB+DP) over lagged capital (Compustat item PPENT), Q_{it} is Tobin’s Q ratio (Compustat item (AT+PRCC×CSHO-CEQ-TXDB)/AT), $Leverage_{it}$ is the leverage ratio (Compustat item (DLTT+DLC)/(DLTT+DLC+SEQ)); $Dividend_{it}/K_{it-1}$ is dividends (Compustat item

DVC+DVP) over lagged capital (Compustat item PPENT), and C_{it}/K_{it-1} is cash (Compustat item CHE) over lagged capital (Compustat item PPENT).

Short-term performance

Bouwman et al. (2009) argue that the presence of frequent acquirers in the sample will bias market model parameter estimations. In line with these authors, this paper uses market-adjusted cumulative abnormal returns (CARs) to measure acquirer short-term performance. Market-adjusted abnormal returns are defined as

$$AR_{it} = R_{it} - R_{mt}$$

where R_{it} is the daily stock return for firm i on date t and R_{mt} is the daily return for the value-weighted CRSP index on date t .

Subsequently, market-adjusted CARs are calculated over a $[-2, 2]$ window around announcements (CAR $[-2, 2]$), as follows:

$$CAR_{i,T_1,T_2} = \sum_{t=T_1}^{T_2} AR_{it}.$$

Long-term performance

Test statistics of long-term market-adjusted abnormal returns are misspecified due to rebalancing bias, new-listing bias, and skewness bias (Barber and Lyon, 1997; Lyon et al., 1999). To address these problems, Lyon et al. (1999) and Bouwman et al. (2009) use size-adjusted buy-and-hold abnormal returns (BHARs) to measure long-term stock performance. Therefore, this paper calculates post-merger 36-month size-adjusted BHARs (BHAR36). Specifically, size-adjusted BHARs are calculated as follows:

$$BHAR_{i,T_1,T_2} = \prod_{t=T_1}^{T_2} (1 + R_{it}) - \prod_{t=T_1}^{T_2} (1 + R_{pt})$$

where R_{it} is the monthly stock return for firm i in month t and R_{pt} is the monthly return for reference portfolio in month t , calculated as

$$R_{pt} = \frac{1}{N} \sum_{j=1}^N R_{jt}$$

where R_{jt} the monthly stock return for firm j in month t and N the number of firms.

In each year, we construct 50 reference portfolios based on size and market-to-book. The reference portfolios are created in two stages, following Bouwman et al. (2009).

First, from 1990 to 2009, all NYSE firms are sorted into deciles on the basis of their market value, calculated as the stock price multiplied by the number of common shares outstanding in June of year t . Second, within each size decile, firms are sorted into quintiles based on their market-to-book ratios, calculated as the market value of equity in June of year t divided by the book value of equity in fiscal year $t - 1$. After all NYSE firms are categorized into 50 groups, AMEX and NASDAQ firms are placed in their proper reference portfolios based on market value and market-to-book ratios. Additionally, firms that conducted acquisitions in year t are excluded from the reference portfolios.

Multivariate analysis

The variation in acquirer abnormal returns can be explained by multiple variables. Since univariate tests do not consider the interaction of alternative variables, the results may be unreliable. Therefore, multivariate regressions are necessary⁶. We divide acquirers into three groups based on their KZ index. Specifically, the lowest (highest) third of acquirers ranked by KZ index is defined as unconstrained (constrained). The middle third of acquirers is classified as the neutral group. For each group, the following equations (1) and (2) are employed to examine the relation between acquirer abnormal returns and investment bankers:

$$CAR_i = \alpha_0 + \alpha_1 TopTier_i + \alpha_2 Firm_i + \alpha_3 Deal_i + \alpha_4 Market_i + f_t + f_{ind.} + \varepsilon_i \quad (1)$$

$$BHAR_i = \alpha_0 + \alpha_1 TopTier_i + \alpha_2 Firm_i + \alpha_3 Deal_i + \alpha_4 Market_i + f_t + f_{ind.} + \varepsilon_i \quad (2)$$

where $TopTier_i$ is the key explanatory variable in this research and equals one if acquirer i retains a top-tier advisor for the deal. $Firm_i$ represents the firm characteristics of acquirer i at the end of fiscal year prior to the announcement, including pre-deal stock performance ($RUNUP$), size ($LN(MV)$), market-to-book ratio (M/B), price-to-earnings ratio (P/E), leverage ($Leverage$), return on equity (ROE), cash flow-to-equity ratio ($Cash\ flows/Equity$), and acquirer takeover experience ($Experienced\ Bidder$). $Deal_i$ represents the deal characteristics for acquirer i , including relative transaction values ($Relative\ Size$), target public status ($Public$), payment method ($Cash/Stock$), deal attitude ($Hostile$), bid competition ($Competing\ Bid$), tender offers ($Tender$), and diversifying deals ($Diversification$). $Market_i$

⁶ All the control variables mentioned in this section are described in Appendix 2, where Panels A to C present firm characteristics, deal characteristics, and market characteristics, respectively.

represents market characteristics for acquirer i , including M&A market heat (*M&A Heat Degree*) and stock market valuation (*High/Low Valuation Market*).

Equations (1) and (2) also control for year fixed effects (f_t) and industry fixed effects ($f_{ind.}$). To minimize the influence of outliers, all continuous variables are winsorized at 3% and 97%.⁷

In addition, this paper also investigates whether constrained acquirers tend to conduct in-house deals or retain top-tier advisors. The following probit models (equations (3) and (4)) are employed to examine whether acquirer financial constraint is a key determinant of decisions on in-house deals and the retention of top-tier advisors, respectively:

$$\text{Probability of in-house deal}_i = \alpha_0 + \alpha_1 KZ_i + \alpha_2 \text{Firm}_i + \alpha_3 \text{Deal}_i + \alpha_4 \text{Market}_i + f_t + f_{ind.} + \varepsilon_i \quad (3)$$

$$\text{Probability of the retention of toptier advisors}_i = \alpha_0 + \alpha_1 KZ_i + \alpha_2 \text{Firm}_i + \alpha_3 \text{Deal}_i + \alpha_4 \text{Market}_i + f_t + f_{ind.} + \varepsilon_i \quad (4)$$

where KZ_i represents the KZ index of acquirer i at the end of fiscal year prior to the announcement. Other variables are explained above.

3.3. Summary statistics

Table 1 exhibits summary statistics for the entire sample. In our sample, 48.74% and 48.15% of deals are advised by top-tier and non-top-tier advisors, respectively. In-house deals account for only 3.11% of the sample.

Insert Table 1 Here

Panel A of Table 1 shows both short- and long-term abnormal returns for acquirers. For the full sample, acquirers' CAR [-2, 2] and BHAR36 average 1.24% and -37.87%, respectively. Deals advised by top-tier advisors generate significantly lower short-

⁷ Results hold when the variables are winsorized at different levels, such as 1% and 99%, 2% and 98%, and 5% and 95%.

term returns but significantly higher long-term returns for acquirers than deals advised by non-top-tier advisors.

Panel B of Table 1 presents statistics for firm characteristics. The KZ index for acquirers averages -9.2557 over the sample period (1990–2009). Additionally, acquirers who retain top-tier advisors have a higher KZ index than acquirers who retain non-top-tier advisors (-7.9906 versus -10.9005), indicating that relatively more constrained acquires tend to choose top-tier advisors.

Furthermore, compared with acquirers advised by non-top-tier advisors, acquirers who retain top-tier advisors have a significantly lower RUNUP value, higher market value, market-to-book ratio, price-to-earnings ratio, leverage ratio, ROE ratio, and cash flows-to-equity ratio, indicating that acquirers who retain top-tier advisors tend to be firms with lower stock performance (but still better than the market index), large firms, glamour firms, firms with higher leverage, and firms with better operating performance. Additionally, compared with non-top-tier advisors, top-tier advisors associate with more percentage of experienced acquirers.

Panel C shows the deal characteristics. Top-tier advisors are significantly associated with larger deals (in terms of transaction value), more public acquisitions, fewer all-stock deals, more all-cash deals, more hostile deals, more competing bids, and more tender offers. In addition, top-tier advisors take more time to complete deals and help their clients pay fewer bid premiums but charge higher advisory fees.

Panel D presents the market characteristics. The term M&A Heat Degree is significantly negatively related to the retention of top-tier advisors, indicating that acquirers in a relatively cold M&A market tend to choose top-tier advisors. In addition, acquirers are more likely to choose top-tier advisors when stock market valuations are high or low.

4. Empirical results

4.1. Univariate analysis

Short-term performance

Table 2 reports the short-term performance (CAR [-2, 2]) for different advisor-constraint groups and their univariate comparison.

Insert Table 2 Here

Panel A of Table 2 shows the announcement abnormal returns for the full sample. Constrained acquirers exhibit a significantly positive short-term outperformance of 1.35% ($p = 0.001$) over unconstrained acquirers. This result is consistent with the free cash flow hypothesis that cash-rich acquirers tend to conduct value-destroying takeovers.

Panel B of Table 2 shows that deals advised by top-tier advisors gain significantly positive announcement abnormal returns for constrained and neutral acquirers, but insignificant abnormal returns for unconstrained acquirers. For deals advised by top-tier advisors, constrained acquirers significantly outperform unconstrained acquirers by 2.41% ($p = 0.000$).

Panels C and D of Table 2 represent the announcement abnormal returns for acquirers advised by non-top-tier advisors and in in-house deals, respectively. In both in-house deals and deals advised by non-top-tier advisors, the differences in abnormal returns between unconstrained and constrained acquirers are insignificant. These results indicate that constrained acquirers do not outperform unconstrained acquirers without the services of top-tier advisors. In other words, if the free cash flow hypothesis can explain all the variation in acquirer short-term performance, constraint acquirers should also outperform unconstrained acquirers in deals advised by non-top-tier advisors and in-house deals. Our results suggest that top-tier advisors play a pivotal role in helping constrained acquirers gain superior performance.

Panel E shows the differences in acquirer announcement abnormal returns between deals advised by top-tier and non-top-tier advisors. For the full sample, acquirers advised by top-tier advisors underperform non-top-tier advisors by 0.75% ($p = 0.025$). This result can be mainly attributed to unconstrained acquirers. Specifically, unconstrained acquirers advised by top-tier advisors significantly underperform unconstrained acquirers advised by non-top-tier advisors by 1.86% ($p = 0.002$). In contrast, constrained acquirers advised by top-tier advisors insignificantly outperform constrained acquirers advised by non-top-tier advisors. For deals advised by investment banks, constraint acquirers advised by top-tier advisors gain the highest

short-term abnormal returns (2.07%, $p = 0.000$). These results suggest that constrained acquirers retain top-tier advisors to chase performance, whereas unconstrained acquirers retain top-tier advisors to complete deals.

Long-term performance

Table 3 reports the long-term performance (BHAR36) for different constraint–advisor groups and their univariate comparison.

Insert Table 3 Here

Panels A to D represent acquirer long-term size-adjusted BHARs for the full sample, deals advised by top-tier advisors, deals advised by non–top-tier advisors, and in-house deals, respectively. Consistent with previous research (Bouwman et al., 2009), long-term abnormal returns are significantly negative for each constraint–advisor group (except for the neutral in-house group, where BHAR36 is insignificantly negative). For the full sample, constrained acquirers significantly outperform unconstrained acquirers by 13.12% ($p = 0.000$). Similarly, for deals advised by top-tier and non–top-tier advisors, constrained acquirers significantly outperform unconstrained acquirers by 12.52% ($p = 0.011$) and 12.48% ($p = 0.015$), respectively. The results concur with the free cash flow hypothesis. However, for in-house deals, the performance differences between constrained and unconstrained acquirers are insignificant.

Panel E shows the differences in long-term performance between deals advised by top-tier and non–top-tier advisors. For the full sample, acquirers advised by top-tier advisors experience a significant, positive long-term outperformance of 15.16% ($p = 0.000$) over acquirers advised by non–top-tier advisors. In addition, acquirers advised by top-tier advisors outperform acquirers advised by non–top-tier advisors by 17.25% ($p = 0.001$), 10.02% ($p = 0.023$), and 17.22% ($p = 0.001$) in the constrained, neutral, and unconstrained sub-groups, respectively. These results support the superior deal hypothesis, in that top-tier advisors are hired to gain better performance.

Time to resolution, bid premiums, and advisory fees

Table 4 reports the time to resolution for different constraint–advisor groups and their univariate comparison. Time to resolution is measured as the number of days between

the announcement and effective dates. Compared with unconstrained acquirers, constrained acquirers use 26.66 ($p = 0.000$) more days to complete deals, on average. In addition, in deals advised by top-tier advisors and deals advised by non-top-tier advisors, the time to resolution is significantly longer for constrained acquirers than unconstrained acquirers. These results suggest that constrained acquirers are more careful in conducting takeovers. However, for in-house deals, the differences between constrained and unconstrained acquirers are insignificant. Furthermore, acquirers advised by top-tier advisors take 15.81 more days to complete deals than acquirers advised by non-top-tier advisors. Similarly, for all three different constraint groups, time to resolution is significantly higher for acquirers advised by top-tier advisors. If top-tier advisors have superior skills, they can take less time to complete deals. However, they take longer, suggesting that they work diligently.

Insert Table 4 Here

Table 5 shows the bid premiums for different constraint–advisor groups and their univariate comparison. Bid premiums, obtained from Thomson One Banker, are calculated as the difference between the deal price and the target’s stock price four weeks prior to the announcement divided by the target’s stock price four weeks prior to the announcement. If acquirers have higher bargaining power, they will pay lower bid premiums. For the full sample, constrained acquirers pay significantly lower premiums than unconstrained acquirers, indicating that constrained acquirers care more about takeover performance than unconstrained acquirers do. In addition, acquirers advised by top-tier advisors pay significantly lower bid premiums than acquirers advised by non-top-tier advisors do, which suggests that top-tier advisors help their clients gain more bargaining power in the negotiation process and ultimately obtain better acquisition performance. In particular, for deals with advisor involvement, constrained acquirers advised by top-tier advisors pay the lowest bid premium (36.99%), whereas neutral acquirers advised by non-top-tier advisors pay the highest bid premium (47.04%).

Insert Table 5 Here

Table 6 shows the acquirer advisory fees for different constraint–advisor groups and their univariate comparison. Top-tier advisors charge significantly higher advisory fees than non–top-tier advisors in the full sample and all three different constraint sub-samples. However, the differences in advisory fees between constraint and unconstrained acquirers are insignificant for the full sample and the two different advisor sub-samples. In particular, unconstrained acquirers advised by top-tier advisors pay the highest advisory fees, whereas constrained acquirers advised by non–top-tier advisors pay the lowest advisory fees. Overpayment leads to negative market reactions.

Insert Table 6 Here

Overall, unconstrained acquirers who retain top-tier advisors pay the highest advisory fees. However, premium advisory fees do not translate into stronger bargaining power. In deals advised by banks, unconstrained acquirers advised by top-tier advisors do not pay lower bid premiums than other acquirers. In contrast, constrained acquirers advised by top-tier advisors pay the lowest bid premiums, indicating that they gain more shares of synergy. All these results suggest that unconstrained acquirers care less about performance compared to constrained acquirers. In other words, unconstrained acquirers do not chase performance. Since unconstrained acquirers tend to be overconfident (Malmendier and Tate, 2008), these results are consistent with Hayward and Hambrick (1997) and Hietala et al. (2003) that overconfident acquirers suffer from overpayment.

4.2. Multivariate analysis

We conduct multivariate regressions to further address the research question. Our analysis proceeds in two steps. Firstly, we are interested in determining whether relatively constrained acquirers tend to employ top-tier advisors and secondly, we conduct regressions of short- and long-term abnormal returns on top-tier advisors for deals advised by investment banks.

Probability of retaining top-tier advisors

Table 7 presents the estimation results of the probit model. Specifications 1 and 2 estimate the impact of financial constraints on the probability of conducting in-house

deals (versus retaining advisors) and the probability of retaining top-tier advisors (versus retaining non-top-tier advisors), respectively.

Insert Table 7 Here

For the probit model of in-house deals, the *KZ index* is significantly positive, indicating that more constrained advisors tend to conduct in-house deals. Furthermore, *RUNUP*, *LN(MV)*, and *Relative Size* are significantly negative, while *M/B*, *Public*, *Heat Degree*, and *High Valuation Market* are positive and significant. These results suggest that a firm tends to conduct in-house deals when it has poorer stock performance before acquisition, smaller size, or a higher market-to-book ratio; when the target is relatively smaller or publicly listed; when the M&A market is hot; or when the stock's market valuation is high.

For the probit model of the retention of top-tier advisors, the *KZ index* is insignificant, indicating that financial constraints are not a determinant of the retention of top-tier advisors. In addition, *RUNUP*, *ROE*, *Stock*, and *Heat Degree* are significantly negative, while *LN(MV)*, *Cash Flows/Equity*, *Relative Size*, and *Public* are significantly positive. These results indicate that top-tier advisors are retained when the acquirer has poorer stock performance before acquisition, larger size, a lower ROE, or more free cash flows; when the target is relatively larger or is publicly listed; or when the M&A market is relatively cold.

Overall, more constrained acquirers tend to conduct in-house deals but do not have a strong preference for retaining top-tier advisors. These results suggest that constrained acquirers are rational in terms of retaining investment bankers.

Short-term performance

Table 8 shows the results of the short-term multivariate analysis. Specifications 1 to 4 represent the regression of CAR [-2, 2] on top-tier advisors for all acquirers and for constrained, neutral, and unconstrained acquirers, respectively.

Insert Table 8 Here

The *Top-Tier* dummy, the key explanatory variable of this paper, is significantly positive in specification 2, but insignificant in specifications 1, 3, and 4. The magnitude of the coefficient of *Top-Tier* dummy is also much smaller in these specifications. In specification 4, the coefficient of *Top-Tier* dummy is even negative. In other words, only for constrained acquirers, top-tier advisors have significantly more positive effects than non-top-tier advisors. For constrained acquirers, retaining top-tier advisors can help improve announcement abnormal returns by 1.17%. However, for unconstrained and neutral acquirers, retaining top-tier advisors does not enhance announcement performance. These results are consistent with the univariate analysis, suggesting that constrained advisors retain top-tier advisors to pursue superior performance, whereas unconstrained acquirers pay more attention to deal completion.

Furthermore, the variable $LN(MV)$ is significantly negative in all specifications, suggesting that larger firms tend to gain lower announcement returns. The variable M/B is significantly negative in specification 2 and P/E is significantly negative in specification 3, indicating that overvalued acquirers underperform in the short term. The *Experienced Bidder* dummy is significantly negative in specification 2, suggesting that more experienced acquirers gain lower announcement returns. The variable *Relative Size* is significantly positive in specification 1, indicating that larger deals create more announcement returns for acquirers. The *Public* dummy is significantly negative in all specifications, implying that public acquisitions underperform private and subsidiary acquisitions around announcements. The *Cash* dummy is significantly positive in specifications 1 to 3, suggesting that cash deals have better announcement performance. The *Competing Bid* dummy is significantly negative in specifications 1 and 2, indicating that takeover contests have a detrimental influence on acquirer announcement returns. The *Tender Offer* dummy is significantly positive in all specifications, implying that tender offers are associated with better short-term performance. These results are consistent with those in the literature.

Long-term performance

Table 9 shows the results of the long-term multivariate analysis. Specifications 1 to 4 represent the regression of BHAR36 on top-tier advisors for all acquirers and constrained, neutral, and unconstrained acquirers, respectively.

Insert Table 9 Here

The coefficient of the *Top-Tier* dummy is positive for specification 1 (regression for the full sample). This result is driven by the constrained acquirer sub-sample. More specifically, the *Top-Tier* dummy is significantly positive in specification 2 but insignificant for specifications 3 and 4. In other words, top-tier advisors help constrained acquirers gain significantly higher long-term abnormal returns, but do not significantly improve performance for unconstrained and neutral acquirers. The magnitude of the coefficient of Top-Tier dummy is largest for constrained acquirers. Acquirers who retain top-tier advisors gain 13.67% higher long-term BHARs. These results concur with the univariate analysis. Overall, the long-term analysis also implies that top-tier advisors are retained by constrained acquirers to chase performance but are retained by unconstrained acquirers to complete deals.

Additionally, variable *RUNUP* is significantly negative in specifications 1 to 3, indicating that firms that have higher stock returns prior to announcements do not maintain their performance during the post-merger period. The term $LN(MV)$ is significantly negative in specification 2, indicating that larger acquirers underperform in the long term. The variable *M/B* is significantly negative in specifications 1 to 3, suggesting that glamour acquirers underperform in the long term. The variable *Leverage* is significantly positive in specifications 1 and 2, implying that debt helps alleviate conflicts of interest and therefore improves acquirer long-term performance. The term *Cash Flows/Equity* is significantly positive in specifications 1 to 3, indicating that acquirers who have better operating performance before acquisitions tend to gain higher long-term returns. The variable *Relative Size* is significantly positive in specification 4, suggesting that acquisitions of relatively larger targets generate higher long-term returns for acquirers. The variable *Public* is significantly positive in specification 2, indicating that public acquisitions create value in the long term. The term *Cash* is significantly positive in specifications 1 and 4, suggesting that all-cash deals outperform stock deals. The variable *Hostile* is significantly positive in specifications 1 and 2, indicating that hostile deals are associated with better long-term performance. The *High (Low) Valuation Market* dummy is significantly positive (negative) in specification 4, suggesting that acquisitions conducted in a “bull” market

gain higher long-term returns than those conducted in a “bear” market. Generally, these results are consistent with the existing literature.

5. Robustness test

This section addresses the robustness of our results.⁸

Measure of financial constraint

To examine whether our results are sensitive to the measure of financial constraint, we also use the SA index (Hadlock and Pierce, 2010) to classify financial constraints of firms. Hadlock and Pierce (2010) argue that firm size and age are the reliable indicators of financial constraints and introduce the SA index. Following Hadlock and Pierce (2010), we calculate the SA index using the following formula:

$$SA = (-0.737 \times \text{Size}) + (0.043 \times \text{Size}^2) - (0.040 \times \text{Age})$$

where Size is the natural logarithm of total assets (inflation adjusted to 2004), and Age is the number of years the firm is listed on Compustat. When the SA index is calculated, Size is winsorized at (the log of) \$4.5 billion, and Age is winsorized at 37 years.

Table 10 shows the regression of the long-term performance, where the SA index is used to measure financial constraint. Specifications 1 to 4 represent the regression of BHAR36 on top-tier advisors for all acquirers, constrained acquirers, neutral acquirers, and unconstrained acquirers, respectively.

Insert Table 10 Here

The results indicate that top-tier advisors significantly improve performance for constrained and neutral acquirers in the long term, whereas unconstrained acquirers advised by top-tier advisors do not outperform unconstrained acquirers advised by non-top-tier advisors. The magnitude of the coefficient of Top-Tier dummy is larger for constrained acquirers, compared to neutral acquirers. These results are consistent with the results of regressions using the KZ index as a measure of financial constraint.

Short-term performance

⁸ This paper does not tabulate all the robustness results for brevity; however, the results are available upon request.

We use alternative event windows and valuation models to measure acquirer short-term performance. Specifically, we calculate CARs over the $[-1, 1]$ and $[-5, 5]$ windows. In addition, we apply the market model, the Fama-French three-factor model, and the Fama-French-momentum four-factor model to compute announcement abnormal returns. The results are not sensitive to these variations.

Long-term performance

We also use alternative event windows and valuation models to measure acquirer long-term performance. Specifically, we calculate BHARs over 12-month and 24-month windows. In addition, we calculate market-adjusted BHARs. For size-adjusted BHARs, we also use following alternative formula:

$$BHAR_{i,T_1,T_2} = \prod_{t=T_1}^{T_2} (1 + R_{it}) - 1 - R_{pt}$$

where R_{it} is the monthly stock return for firm i in month t and R_{pt} is the monthly buy-and-hold return for the reference portfolio in month t , calculated as

$$R_{pt} = \sum_{j=1}^n \frac{\prod_{t=T_1}^{T_2} (1 + R_{jt}) - 1}{n}$$

with R_{jt} the monthly stock return for firm j in month t and n the number of firms.

the results are robust to these variations.

Financial advisor classification

We evaluate whether our results are sensitive to different financial advisor classifications. Specifically, we follow the method of Golubov et al. (2012), using the top-eight cut-off point. The results are robust to this classification.

6. Conclusions

This paper examines whether top-tier investment bankers can help acquirers gain superior takeover performance, controlling for firm financial conditions. Our probit models suggest that relatively constrained acquirers are more likely to conduct in-house deals but do not chase top-tier advisors, exhibiting rational behavior. In line with Malmendier and Tate (2008) that financially unconstrained acquirers tend to be overconfident and therefore make value-decreasing takeovers, this paper show that the retention of top-tier advisors improves acquirer performance, but only for

constrained acquirers. Specifically, in the short term, retaining top-tier advisors can help constrained acquirers improve announcement abnormal returns by 1.17%, after controlling for firm, deal, and market characteristics. However, the retention of top-tier advisors does not improve short-term performance for unconstrained and neutral acquirers. In the long term, top-tier advisors are positively related to acquirer performance. The result is driven by the sub-sample of constrained acquirers. For constrained acquirers, the retention of top-tier advisors improves long-term performance by 13.67%, after firm, deal, and market characteristics are controlled for. In contrast, the effects of top-tier advisors are insignificant for unconstrained and neutral acquirers. Therefore, the results indicate that top-tier advisors do create value for relatively constrained acquirers in both the short and long term.

The results for time to resolution, bid premiums, and advisory fees can help explain the variation in acquirer performance. Whether acquirers are constrained or unconstrained, top-tier advisors take longer to help their clients complete deals, suggesting that top-tier advisors are diligent. Meanwhile, top-tier advisors charge about three times higher advisory fees than non-top-tier advisors, on average. In particular, unconstrained advisors who retain top-tier advisors pay the highest advisory fees. If unconstrained acquirers are rational and chase performance, they should expect to gain higher bargaining power and therefore pay lower bid premiums. However, the highest advisory fees do not translate into greater bargaining power in the negotiation process. Unconstrained acquirers advised by top-tier advisors pay higher bid premiums, while constrained acquirers advised by top-tier advisors pay the lowest bid premiums. These results indicate that constrained acquirers who retain top-tier advisors gain greater bargaining power, while unconstrained acquirers care less about overpayment and takeover performance. These results are consistent with overconfidence hypothesis that overconfident CEOs overestimate their ability to achieve synergy (Roll, 1986; Doukas and Petmezas, 2007; Malmendier and Tate, 2008; Croci et al., 2010) and overpay takeover targets, leading to negative market reactions.

Overall, our results suggest that different acquirers have different aims. Constrained acquirers retain top-tier advisors to gain superior performance, while unconstrained acquirers retain top-tier advisors to complete their intended deals.

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Table 1: Summary Statistics

This table presents summary statistics for the full sample. The top-tier, non-top-tier and in-house subsamples contain deals advised by top-tier advisors, deals advised by non-top-tier advisors and in-house deals, respectively. Panel A reports acquirer short- and long-term abnormal returns. CAR [-2, 2] is the 5-day market-adjusted cumulative abnormal returns around announcement. BHAR36 is the post-merger 36-month size-adjusted buy-and-hold abnormal returns. Panel B reports financial advisor status. In-House dummy equals one if there is no advisor retained for the acquisition. Top-Tier dummy equals one if a top-tier advisor is retained by an acquirer. Panel C reports acquirer firm characteristics. KZ Index is Kaplan and Zingales Index measured at the fiscal year end before the announcement. RUNUP is measured as market-adjusted CARs over the [-365, -28] window prior to announcement. MV is market value of equity measured 4 weeks before the announcement. M/B is measured as market value of equity 4 weeks before the announcement divided by book value of equity at the fiscal year end before the announcement. P/E is measured as share price over earnings per share at the fiscal year end before the announcement. Leverage is measured as total debt over total capital at the fiscal year end before the announcement. ROE is measured as net income over shareholders' equity at the fiscal year end before the announcement. Cash Flows/Equity is measured as cash flows at the fiscal year end before the announcement divided by market value of equity 4 weeks before the announcement. Experienced Bidder dummy equals one if the acquirer has conducted 3 or more M&A deals over the five years period before the acquisition in question. Panel D reports deal characteristics. Transaction Value is the value of the deal. Relative Size is measured as the transaction value divided by the acquirer market value of equity 4 weeks before the announcement. Public dummy equals one if the target is publicly listed. Stock dummy equals one if the deal is 100% paid by stock. Cash dummy equals one if the deal is 100% paid by cash. Mixed dummy equals one if the deal is partially paid by stock and partially paid by cash. Hostile dummy equals one if the deal is identified as hostile or unsolicited by Thomson One Banker. Competing Bid dummy equals one if the number of bidding firms is more than one. Tender Offer dummy equals one if the deal is a tender offer. Diversification dummy equals one if the acquirer and the target have different first two-digit of primary SIC code. Time to resolution is measured as the number of days between announcement and effective date. Bid premium, obtained from Thomson One Banker, is calculated as the difference between the deal price and the target's stock price 4 weeks prior to the announcement divided by the target's stock price 4 weeks prior to the announcement. Acquirer advisory fees are obtained from Thomson One Banker. Panel E reports market characteristics. M&A Heat Degree is measured as the moving average of the number of M&A deals in each quarter divided by the historical average of the number of M&A deals in all previous quarters going back to 1985. High Valuation Market dummy equals one if a deal is conducted during the period of high valuation market. Low Valuation Market equals one if a deal is conducted during the period of low valuation market. For the full sample, all continuous variables are winsorized at the 3% and 97% levels.

	All (A)		Top-Tier (T)		Non-Top-Tier (N)		In-House (I)		Difference (T) – (N)	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	P-Value
Panel A: Short- and Long-term Abnormal Returns										
CAR[-2,2]	1.24%	2860	0.85%	1394	1.60%	1377	1.73%	89	-0.75% **	(0.025)
BHAR36	-37.87%	2860	-30.52%	1394	-45.67%	1377	-32.38%	89	15.16% ***	(0.000)
Panel B: Firm Characteristics										
KZ Index	-9.2557	2860	-7.9906	1394	-10.9005	1377	-3.6207	89	2.9099***	(0.000)
RUNUP	18.78%	2860	16.81%	1394	21.04%	1377	14.54%	89	-4.22% **	(0.014)
MV	7167.1830	2860	11069.7200	1394	2373.9750	1377	20202.0500	89	8695.7490***	(0.000)
M/B	4.7578	2860	4.8769	1394	4.4789	1377	7.2077	89	0.3980**	(0.038)
P/E	19.4932	2860	20.9607	1394	17.1087	1377	33.3998	89	3.8520**	(0.027)
Leverage	0.2710	2860	0.3042	1394	0.2385	1377	0.2534	89	0.0657***	(0.000)
ROE	0.0584	2860	0.0936	1394	0.0195	1377	0.1083	89	0.0741***	(0.000)
Cash Flows/Equity	0.0511	2860	0.0592	1394	0.0121	1377	0.0376	89	0.0471***	(0.001)
Experienced Bidder	65.17%	2860	74.39%	1394	54.61%	1377	84.27%	89	19.78% ***	(0.000)
Panel C: Deal Characteristics										
Transaction Value (\$ mil.)	576.3090	2860	916.0940	1394	243.0269	1377	410.7923	89	673.0671***	(0.000)
Relative Size	0.3098	2860	0.3072	1394	0.3269	1377	0.0841	89	-0.0197	(0.166)
Public	46.54%	2860	53.80%	1394	36.67%	1377	85.39%	89	17.13% ***	(0.000)
All-Stock Deals	26.75%	2860	21.16%	1394	30.86%	1377	50.56%	89	-9.70% ***	(0.000)
All-Cash Deals	35.80%	2860	40.39%	1394	31.45%	1377	31.46%	89	8.94% ***	(0.000)
Hostile	1.12%	2860	1.94%	1394	0.36%	1377	0.00%	89	1.57% ***	(0.000)
Competing Bid	1.96%	2860	2.80%	1394	1.09%	1377	2.25%	89	1.71% ***	(0.001)
Tender Offer	16.26%	2860	20.09%	1394	12.20%	1377	19.10%	89	7.89% ***	(0.000)
Diversification	34.72%	2860	34.65%	1394	34.42%	1377	40.45%	89	0.23%	(0.901)
Time-to-Resolution (days)	83.3601	2860	90.4017	1394	74.5933	1377	108.7079	89	15.8084***	(0.000)
Bid Premium	41.84%	1219	39.79%	706	43.29%	445	53.62%	68	-3.50% *	(0.100)
Advisory Fees (\$ mil.)	3.6802	483	5.5529	236	1.8910	247	-	-	3.6619***	(0.000)
Panel D: Market Characteristics										
M&A Heat Degree	1.4778	2860	1.4382	1394	1.4958	1377	1.8182	89	-0.0576***	(0.000)
High Valuation Market	28.08%	2860	28.62%	1394	25.42%	1377	60.67%	89	3.21% *	(0.058)
Low Valuation Market	25.14%	2860	28.77%	1394	22.88%	1377	3.37%	89	5.89% ***	(0.000)

Table 2: Acquirer Short-Term Performance

This table reports acquirer short-term 5 day market-adjusted cumulative abnormal returns around the announcement for the full sample. We measure the market-adjusted CARs using the formula $CAR_{i,T_1,T_2} = \sum_{t=T_1}^{T_2} (R_{it} - R_{mt})$. Acquirers are divided into three groups based on KZ Index. Specifically, the lowest (highest) one third of acquirers ranked by their KZ Index are defined as unconstrained (constrained) acquirers. The middle one third of acquirers are sorted into the neutral group. Panel A relates to all deals in the sample. Panel B relates to deals advised by top-tier advisors. Panel C relates to deals advised by non-top-tier advisors. Panel D relates to in-house deals. Panel E relates to difference in acquirer performance between deals advised by top-tier and non-top-tier advisors. The variable (CAR) is winsorized at the 3% and 97% levels. The P-Value calculated using the t-test is shown in parentheses. Statistical significance at the 1% level, 5% level and 10% levels is denoted ***, ** and * respectively.

	All (A)	Constrained (C)	Neutral (N)	Unconstrained (U)	Difference (C) – (U)
Panel A: All					
Mean	1.24%***	2.00%***	1.06%***	0.65%**	1.35%***
P-Value	(0.000)	(0.000)	(0.000)	(0.031)	(0.001)
N	2860	954	953	953	
Panel B: Top-Tier					
Mean	0.85%***	2.07%***	0.75%***	-0.34%	2.41%***
P-Value	(0.000)	(0.000)	(0.018)	(0.146)	(0.000)
N	1394	460	505	429	
Panel C: Non-Top-Tier					
Mean	1.60%***	2.00%***	1.26%***	1.52%***	0.48%
P-Value	(0.000)	(0.000)	(0.003)	(0.001)	(0.447)
N	1377	455	421	501	
Panel D: In-House					
Mean	1.73%**	1.22%	3.77%***	0.17%	1.05%
P-Value	(0.027)	(0.354)	(0.005)	(0.897)	(0.571)
N	89	39	27	23	
Panel E: Difference (Panel B – Panel C)					
Difference	-0.75%**	0.07%	-0.51%	-1.86%***	
P-Value	(0.025)	(0.910)	(0.339)	(0.002)	

Table 3: Acquirer Long-Term Performance

This table reports the acquirer long-term 36 month size-adjusted buy-and-hold abnormal returns from the announcement for the full sample. We measure the size-adjusted BHARs using the formula $BHAR_{i,T_1,T_2} = \prod_{t=T_1}^{T_2} (1 + R_{it}) - \prod_{t=T_1}^{T_2} (1 + R_{pt})$. Acquirers are divided into three groups based on KZ Index. Specifically, the lowest (highest) one third of acquirers ranked by their KZ Index are defined as unconstrained (constrained) acquirers. The middle one third of acquirers are sorted into the neutral group. Panel A relates to all deals in the sample. Panel B relates to deals advised by top-tier advisors. Panel C relates to deals advised by non-top-tier advisors. Panel D relates to in-house deals. Panel E relates to difference in acquirer performance between deals advised by top-tier and non-top-tier advisors. The variable (BHAR) is winsorized at the 3% and 97% levels. The P-Value is shown in parentheses and is calculated using the bootstrapping method for BHARs and the t-test for the difference between sub-samples. Statistical significance at the 1% level, 5% level and 10% levels is denoted ***, ** and * respectively.

	All (A)	Constrained (C)	Neutral (N)	Unconstrained (U)	Difference (C) – (U)
Panel A: All					
Mean	-37.87%***	-31.63%***	-37.26%***	-44.75%***	13.12%***
P-Value	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	2860	954	953	953	
Panel B: Top-Tier					
Mean	-30.25%***	-22.98%***	-33.15%***	-35.50%***	12.52%**
P-Value	(0.000)	(0.001)	(0.000)	(0.001)	(0.011)
N	1394	460	505	429	
Panel C: Non-Top-Tier					
Mean	-45.67%***	-40.24%***	-43.17%***	-52.72%***	12.48%**
P-Value	(0.000)	(0.000)	(0.000)	(0.000)	(0.015)
N	1377	455	421	501	
Panel D: In-House					
Mean	-32.38%***	-33.07%**	-21.86%	-43.55%***	10.49%
P-Value	(0.001)	(0.038)	(0.230)	(0.005)	(0.567)
N	89	39	27	23	
Panel E: Difference (Panel B – Panel C)					
Difference	15.16%***	17.25%***	10.02%**	17.22%***	
P-Value	(0.000)	(0.001)	(0.023)	(0.001)	

Table 4: Time to Resolution

This table reports time to resolution for the full sample. Time to resolution is measured as the number of days between announcement and effective date. Acquirers are divided into three groups based on KZ Index. Specifically, the lowest (highest) one third of acquirers ranked by their KZ Index are defined as unconstrained (constrained) acquirers. The middle one third of acquirers are sorted into the neutral group. Panel A relates to all deals in the sample. Panel B relates to deals advised by top-tier advisors. Panel C relates to deals advised by non-top-tier advisors. Panel D relates to in-house deals. Panel E relates to difference in acquirer performance between deals advised by top-tier and non-top-tier advisors. The variable (Time to Resolution) is winsorized at the 3% and 97% levels. The P-Value is shown in parentheses and is calculated using the t-test for the difference between sub-samples. Statistical significance at the 1% level, 5% level and 10% levels is denoted ***, ** and * respectively.

	All (A)	Constrained (C)	Neutral (N)	Unconstrained (U)	Difference (C) – (U)
Panel A: All					
Mean	83.36	96.94	82.84	70.29	26.66***
P-Value	-	-	-	-	(0.000)
N	2860	954	953	953	
Panel B: Top-Tier					
Mean	90.40	100.21	91.48	78.61	21.60***
P-Value	-	-	-	-	(0.000)
N	1394	460	505	429	
Panel C: Non-Top-Tier					
Mean	74.59	92.21	71.37	61.30	30.90***
P-Value	-	-	-	-	(0.000)
N	1377	455	421	501	
Panel D: In-House					
Mean	108.71	113.67	99.85	110.70	2.97
P-Value	-	-	-	-	(0.870)
N	89	39	27	23	
Panel E: Difference (Panel B – Panel C)					
Difference	15.81***	8.00*	20.12***	17.30***	
P-Value	(0.000)	(0.093)	(0.000)	(0.000)	

Table 5: Bid Premium

This table reports the bid premium for the full sample. Bid premium is obtained from Thomson One Banker. It is calculated as the difference between the deal price and the target's stock price 4 weeks prior to the announcement divided by the target's stock price 4 weeks prior to the announcement. Acquirers are divided into three groups based on KZ Index. Specifically, the lowest (highest) one third of acquirers ranked by their KZ Index are defined as unconstrained (constrained) acquirers. The middle one third of acquirers are sorted into the neutral group. Panel A relates to all deals in the sample. Panel B relates to deals advised by top-tier advisors. Panel C relates to deals advised by non-top-tier advisors. Panel D relates to in-house deals. Panel E relates to difference in acquirer performance between deals advised by top-tier and non-top-tier advisors. The variable (Bid Premium) is winsorized at the 3% and 97% levels. The P-Value is shown in parentheses and is calculated using the t-test for the difference between sub-samples. Statistical significance at the 1% level, 5% level and 10% levels is denoted ***, ** and * respectively.

	All (A)	Constrained (C)	Neutral (N)	Unconstrained (U)	Difference (C) – (U)
Panel A: All					
Mean	41.84%	39.68%	42.09%	44.09%	-4.41%*
P-Value	-	-	-	-	(0.078)
N	1219	430	424	365	
Panel B: Top-Tier					
Mean	39.79%	36.99%	38.20%	44.75%	-7.76%**
P-Value	-	-	-	-	(0.018)
N	706	230	262	214	
Panel C: Non-Top-Tier					
Mean	43.29%	41.41%	47.04%	41.73%	-0.33%
P-Value	-	-	-	-	(0.936)
N	445	171	141	133	
Panel D: In-House					
Mean	53.62%	50.84%	57.35%	53.75%	2.91%
P-Value	-	-	-	-	(0.813)
N	68	29	21	18	
Panel E: Difference (Panel B – Panel C)					
Difference	-3.05%*	-4.42%	-8.83%**	3.01%	
P-Value	(0.100)	(0.189)	(0.020)	(0.453)	

Table 6: Acquirer Advisory Fees

This table reports the acquirer advisory fees for the full sample. Acquirer advisory fees shown in million dollars are obtained from Thomson One Banker. Acquirers are divided into three groups based on KZ Index. Specifically, the lowest (highest) one third of acquirers ranked by their KZ Index are defined as unconstrained (constrained) acquirers. The middle one third of acquirers are sorted into the neutral group. Panel A relates to all deals in the sample. Panel B relates to deals advised by top-tier advisors. Panel C relates to deals advised by non-top-tier advisors. Panel D relates to difference in acquirer performance between deals advised by top-tier and non-top-tier advisors. The P-Value is shown in parentheses and is calculated using the bootstrapping method for BHARs and the t-test for the difference between sub-samples. The variable (Acquirer Advisory Fees) is winsorized at the 3% and 97% levels. The P-Value is shown in parentheses and is calculated using the t-test for the difference between sub-samples. Statistical significance at the 1% level, 5% level and 10% levels is denoted ***, ** and * respectively.

	All (A)	Constrained (C)	Neutral (N)	Unconstrained (U)	Difference (C) – (U)
Panel A: All					
Mean	3.68	3.08	4.11	4.07	-1.00
P-Value	-	-	-	-	(0.119)
N	483	197	158	128	
Panel B: Top-Tier					
Mean	5.55	4.81	5.68	6.58	-1.77
P-Value	-	-	-	-	(0.125)
N	236	94	84	58	
Panel C: Non-Top-Tier					
Mean	1.89	1.50	2.33	2.00	-0.50
P-Value	-	-	-	-	(0.339)
N	247	103	74	70	
Panel D: Difference (Panel B – Panel C)					
Difference	3.66***	3.31***	3.35***	4.58***	
P-Value	(0.000)	(0.000)	(0.000)	(0.000)	

Table 7: Probit Model of Retaining Advisors

This table presents results of the probit regression of the probability of retaining investment banker on financial constraint for the full sample. Specification 1, and 2 report the results for the probability of conducting in-house deals and the probability of retaining top-tier advisors respectively. The key explanatory variable is the KZ index. KZ Index is Kaplan and Zingales Index measured at the fiscal year end before the announcement. Other control variables include firm, deal and market characteristics. For firm characteristics, RUNUP is measured as market-adjusted CARs over the [-365, -28] window prior to announcement. LN(MV) is the natural logarithm of the market value of equity measured 4 weeks before the announcement. M/B is measured as market value of equity 4 weeks before the announcement divided by book value of equity at the fiscal year end before the announcement. P/E is measured as share price over earnings per share at the fiscal year end before the announcement. Leverage is measured as total debt over total capital at the fiscal year end before the announcement. ROE is measured as net income over shareholders' equity at the fiscal year end before the announcement. Cash Flows/Equity is measured as cash flows at the fiscal year end before the announcement divided by market value of equity 4 weeks before the announcement. Experienced Bidder dummy equals one if the acquirer has conducted 3 or more M&A deals over the five years period before the acquisition in question. For deal characteristics, Relative Size is measured as the transaction value divided by the acquirer market value of equity 4 weeks before the announcement. Public dummy equals one if the target is publicly listed. Stock dummy equals one if the deal is 100% paid by stock. Cash dummy equals one if the deal is 100% paid by cash. Competing Bid dummy equals one if the number of bidding firms is more than one. Diversification dummy equals one if the acquirer and the target have different first two-digit of primary SIC code. For market characteristics, M&A Heat Degree is measured as the moving average of the number of M&A deals in each quarter divided by the historical average of the number of M&A deals in all previous quarters going back to 1985. High Valuation Market dummy equals one if a deal is conducted during the period of high valuation market. Low Valuation Market equals one if a deal is conducted during the period of low valuation market. All continuous variables are winsorized at the 3% and 97% levels. We also control for industry fixed effects and year fixed effects. For brevity, they are not reported in the table. The P-Value shown in parentheses is adjusted for heteroskedasticity and bidder clustering. Significance at the 1%, 5% and 10% levels are denoted ***, ** and * respectively.

	(1) In-House	(2) Top-Tier
KZ	0.0211*** (0.008)	-0.0015 (0.339)
RUNUP	-0.3590* (0.053)	-0.1609** (0.025)
LN(MV)	-0.1075** (0.039)	0.4455*** (0.000)
M/B	0.0291* (0.065)	-0.0057 (0.467)
P/E	0.0015 (0.235)	0.0005 (0.425)
Leverage	-0.2761 (0.414)	0.1549 (0.233)
ROE	0.4857 (0.267)	-0.3570** (0.024)
Cash Flows/Equity	-1.3363 (0.319)	1.4902*** (0.001)
Experienced Bidder	0.2430 (0.141)	-0.0057 (0.929)
Relative Size	-3.3819*** (0.000)	0.6828*** (0.000)
Public	0.9698*** (0.000)	0.1146* (0.051)
Stock	0.2586 (0.103)	-0.1922** (0.017)
Cash	-0.1344 (0.458)	-0.0145 (0.829)
Competing Bid	0.2827 (0.598)	0.0578 (0.791)
Diversification	0.0923 (0.491)	-0.0588 (0.332)
Heat Degree	1.7613*** (0.000)	-0.3764*** (0.000)
High Valuation Market	0.6282*** (0.000)	0.0437 (0.532)
Low Valuation Market	-0.0648 (0.821)	-0.0227 (0.757)
Constant	-4.5768*** (0.000)	-2.8206*** (0.000)
N	2860	2771
pseudo R ²	0.378	0.232

Table 8: Regression of Short-Term Performance

This table presents results of the OLS regression of short-term performance for the sample of deals advised by investment banks. Specification 1, 2, 3 and 4 report the results for all, constrained, neutral and unconstrained acquirers, respectively. In these models we regress acquirer CAR [-2, 2] against a vector of explanatory variables. The key explanatory variable is the Top-Tier dummy that equals one if a top-tier advisor is retained by an acquirer. Other control variables include firm, deal and market characteristics. For firm characteristics, RUNUP is measured as market-adjusted CARs over the [-365, -28] window prior to announcement. LN(MV) is the natural logarithm of the market value of equity measured 4 weeks before the announcement. M/B is measured as market value of equity 4 weeks before the announcement divided by book value of equity at the fiscal year end before the announcement. P/E is measured as share price over earnings per share at the fiscal year end before the announcement. Leverage is measured as total debt over total capital at the fiscal year end before the announcement. ROE is measured as net income over shareholders' equity at the fiscal year end before the announcement. Cash Flows/Equity is measured as cash flows at the fiscal year end before the announcement divided by market value of equity 4 weeks before the announcement. Experienced Bidder dummy equals one if the acquirer has conducted 3 or more M&A deals over the five years period before the acquisition in question. For deal characteristics, Relative Size is measured as the transaction value divided by the acquirer market value of equity 4 weeks before the announcement. Public dummy equals one if the target is publicly listed. Stock dummy equals one if the deal is 100% paid by stock. Cash dummy equals one if the deal is 100% paid by cash. Hostile dummy equals one if the deal is identified as hostile or unsolicited by Thomson One Banker. Competing Bid dummy equals one if the number of bidding firms is more than one. Tender Offer dummy equals one if the deal is a tender offer. Diversification dummy equals one if the acquirer and the target have different first two-digit of primary SIC code. For market characteristics, M&A Heat Degree is measured as the moving average of the number of M&A deals in each quarter divided by the historical average of the number of M&A deals in all previous quarters going back to 1985. High Valuation Market dummy equals one if a deal is conducted during the period of high valuation market. Low Valuation Market equals one if a deal is conducted during the period of low valuation market. All continuous variables are winsorized at the 3% and 97% levels. We also control for industry fixed effects and year fixed effects. For brevity, they are not reported in the table. The P-Value shown in parentheses is adjusted for heteroskedasticity and bidder clustering. Significance at the 1%, 5% and 10% levels are denoted ***, ** and * respectively.

	(1) All	(2) Constrained	(3) Neutral	(4) Unconstrained
Top-Tier	0.0028 (0.476)	0.0117* (0.093)	0.0063 (0.300)	-0.0068 (0.375)
RUNUP	0.0035 (0.464)	-0.0041 (0.637)	0.0051 (0.581)	0.0014 (0.862)
LN(MV)	-0.0050*** (0.000)	-0.0051** (0.031)	-0.0055*** (0.005)	-0.0047* (0.088)
M/B	0.0004 (0.422)	-0.0016** (0.032)	0.0013 (0.179)	0.0012 (0.190)
P/E	-0.0000 (0.960)	-0.0000 (0.979)	-0.0001* (0.057)	0.0001 (0.323)
Leverage	0.0109 (0.171)	0.0092 (0.491)	-0.0051 (0.725)	0.0212 (0.244)
ROE	0.0082 (0.420)	0.0122 (0.424)	0.0136 (0.527)	-0.0032 (0.864)
Cash Flows/Equity	0.0033 (0.905)	-0.0284 (0.505)	0.0355 (0.600)	-0.0049 (0.923)
Experienced Bidder	-0.0037 (0.344)	-0.0117* (0.097)	-0.0003 (0.960)	0.0045 (0.539)
Relative Size	0.0108* (0.089)	0.0110 (0.251)	0.0031 (0.764)	0.0167 (0.241)
Public	-0.0342*** (0.000)	-0.0297*** (0.000)	-0.0325*** (0.000)	-0.0395*** (0.000)
Stock	-0.0032 (0.520)	-0.0026 (0.769)	0.0041 (0.621)	-0.0123 (0.182)
Cash	0.0146*** (0.000)	0.0169** (0.014)	0.0152** (0.020)	0.0097 (0.216)
Hostile	-0.0181 (0.145)	0.0040 (0.842)	-0.0268 (0.253)	-0.0321 (0.139)
Competing Bid	-0.0257** (0.021)	-0.0587*** (0.004)	-0.0171 (0.156)	0.0085 (0.737)
Tender	0.0317*** (0.000)	0.0237*** (0.008)	0.0309*** (0.000)	0.0412*** (0.000)
Diversification	-0.0054 (0.129)	-0.0111 (0.123)	-0.0035 (0.526)	-0.0043 (0.527)
Heat Degree	-0.0365 (0.278)	-0.0300 (0.623)	-0.0128 (0.802)	-0.0632 (0.319)
High Valuation Market	-0.0037 (0.627)	-0.0134 (0.295)	0.0181 (0.124)	-0.0206 (0.141)
Low Valuation Market	0.0028 (0.740)	0.0073 (0.631)	0.0245 (0.101)	-0.0165 (0.277)
Constant	0.0760** (0.040)	0.0775 (0.271)	0.0470 (0.405)	0.1103 (0.104)
N	2771	915	926	930
R ²	0.092	0.147	0.108	0.110

Table 9: Regression of Long-Term Performance

This table presents results of the OLS regression of long-term performance for the sample of deals advised by investment banks. Specification 1, 2, 3 and 4 report the results for all, constrained, neutral and unconstrained acquirers, respectively. In these models we regress acquirer BHAR36 against a vector of explanatory variables. The key explanatory variable is the Top-Tier dummy that equals one if a top-tier advisor is retained by an acquirer. Other control variables include firm, deal and market characteristics. For firm characteristics, RUNUP is measured as market-adjusted CARs over the [-365, -28] window prior to announcement. LN(MV) is the natural logarithm of the market value of equity measured 4 weeks before the announcement. M/B is measured as market value of equity 4 weeks before the announcement divided by book value of equity at the fiscal year end before the announcement. P/E is measured as share price over earnings per share at the fiscal year end before the announcement. Leverage is measured as total debt over total capital at the fiscal year end before the announcement. ROE is measured as net income over shareholders' equity at the fiscal year end before the announcement. Cash Flows/Equity is measured as cash flows at the fiscal year end before the announcement divided by market value of equity 4 weeks before the announcement. Experienced Bidder dummy equals one if the acquirer has conducted 3 or more M&A deals over the five years period before the acquisition in question. For deal characteristics, Relative Size is measured as the transaction value divided by the acquirer market value of equity 4 weeks before the announcement. Public dummy equals one if the target is publicly listed. Stock dummy equals one if the deal is 100% paid by stock. Cash dummy equals one if the deal is 100% paid by cash. Hostile dummy equals one if the deal is identified as hostile or unsolicited by Thomson One Banker. Competing Bid dummy equals one if the number of bidding firms is more than one. Tender Offer dummy equals one if the deal is a tender offer. Diversification dummy equals one if the acquirer and the target have different first two-digit of primary SIC code. For market characteristics, M&A Heat Degree is measured as the moving average of the number of M&A deals in each quarter divided by the historical average of the number of M&A deals in all previous quarters going back to 1985. High Valuation Market dummy equals one if a deal is conducted during the period of high valuation market. Low Valuation Market equals one if a deal is conducted during the period of low valuation market. All continuous variables are winsorized at the 3% and 97% levels. We also control for industry fixed effects and year fixed effects. For brevity, they are not reported in the table. The P-Value shown in parentheses is adjusted for heteroskedasticity and bidder clustering. Significance at the 1%, 5% and 10% levels are denoted ***, ** and * respectively.

	(1) All	(2) Constrained	(3) Neutral	(4) Unconstrained
Top-Tier	0.1056*** (0.003)	0.1367** (0.031)	0.0761 (0.153)	0.0759 (0.244)
RUNUP	-0.1067** (0.011)	-0.1331* (0.074)	-0.1857*** (0.009)	-0.0157 (0.838)
LN(MV)	-0.0094 (0.465)	-0.0398* (0.094)	-0.0033 (0.852)	0.0157 (0.570)
M/B	-0.0130*** (0.006)	-0.0198** (0.010)	-0.0146** (0.013)	-0.0066 (0.380)
P/E	-0.0001 (0.699)	0.0000 (0.982)	-0.0004 (0.495)	-0.0002 (0.744)
Leverage	0.1389* (0.075)	0.2533* (0.067)	0.0707 (0.557)	0.1676 (0.224)
ROE	-0.0733 (0.388)	-0.1107 (0.449)	-0.2653 (0.104)	0.0880 (0.541)
Cash Flows/Equity	0.8123*** (0.001)	0.6696* (0.075)	1.9444*** (0.000)	0.0038 (0.993)
Experienced Bidder	-0.0008 (0.982)	-0.0728 (0.239)	-0.0129 (0.828)	0.0571 (0.400)
Relative Size	0.0566 (0.272)	-0.0789 (0.330)	0.0395 (0.635)	0.3318*** (0.003)
Public	0.0325 (0.365)	0.1120* (0.099)	-0.0424 (0.403)	0.0008 (0.990)
Stock	-0.0399 (0.383)	-0.0890 (0.284)	-0.0469 (0.448)	-0.0409 (0.650)
Cash	0.0648** (0.046)	0.0297 (0.640)	0.0198 (0.693)	0.1389** (0.014)
Hostile	0.2876** (0.034)	0.3528* (0.062)	0.1434 (0.579)	0.4237 (0.237)
Competing Bid	-0.1145 (0.242)	-0.2557 (0.167)	0.0115 (0.941)	-0.1325 (0.477)
Tender	0.0201 (0.645)	0.0126 (0.875)	0.0302 (0.651)	-0.0004 (0.996)
Diversification	-0.0256 (0.435)	0.0423 (0.490)	-0.0098 (0.827)	-0.0932 (0.107)
Heat Degree	0.2060 (0.417)	-0.2466 (0.599)	0.3462 (0.407)	0.4515 (0.312)
High Valuation Market	0.0800 (0.176)	0.1088 (0.309)	-0.0711 (0.442)	0.2432** (0.012)
Low Valuation Market	-0.0082 (0.918)	0.0946 (0.543)	-0.0046 (0.972)	-0.1912* (0.084)
Constant	-0.6599** (0.022)	0.1484 (0.785)	-0.8030* (0.088)	-1.3162*** (0.008)
N	2771	915	926	930
R ²	0.103	0.141	0.161	0.151

Table 10: Regression of Long-Term Performance (using the SA index as the measure of financial constraint)

This table presents results of the OLS regression of long-term performance for the sample of deals advised by investment banks. Specification 1, 2, 3 and 4 report the results for all, constrained, neutral and unconstrained acquirers, respectively. In this table, the SA index is used to measure firm's financial constraint. In these models we regress acquirer BHAR36 against a vector of explanatory variables. The key explanatory variable is the Top-Tier dummy that equals one if a top-tier advisor is retained by an acquirer. Other control variables include firm, deal and market characteristics. For firm characteristics, RUNUP is measured as market-adjusted CARs over the [-365, -28] window prior to announcement. LN(MV) is the natural logarithm of the market value of equity measured 4 weeks before the announcement. M/B is measured as market value of equity 4 weeks before the announcement divided by book value of equity at the fiscal year end before the announcement. P/E is measured as share price over earnings per share at the fiscal year end before the announcement. Leverage is measured as total debt over total capital at the fiscal year end before the announcement. ROE is measured as net income over shareholders' equity at the fiscal year end before the announcement. Cash Flows/Equity is measured as cash flows at the fiscal year end before the announcement divided by market value of equity 4 weeks before the announcement. Experienced Bidder dummy equals one if the acquirer has conducted 3 or more M&A deals over the five years period before the acquisition in question. For deal characteristics, Relative Size is measured as the transaction value divided by the acquirer market value of equity 4 weeks before the announcement. Public dummy equals one if the target is publicly listed. Stock dummy equals one if the deal is 100% paid by stock. Cash dummy equals one if the deal is 100% paid by cash. Hostile dummy equals one if the deal is identified as hostile or unsolicited by Thomson One Banker. Competing Bid dummy equals one if the number of bidding firms is more than one. Tender Offer dummy equals one if the deal is a tender offer. Diversification dummy equals one if the acquirer and the target have different first two-digit of primary SIC code. For market characteristics, M&A Heat Degree is measured as the moving average of the number of M&A deals in each quarter divided by the historical average of the number of M&A deals in all previous quarters going back to 1985. High Valuation Market dummy equals one if a deal is conducted during the period of high valuation market. Low Valuation Market equals one if a deal is conducted during the period of low valuation market. All continuous variables are winsorized at the 3% and 97% levels. We also control for industry fixed effects and year fixed effects. For brevity, they are not reported in the table. The P-Value shown in parentheses is adjusted for heteroskedasticity and bidder clustering. Significance at the 1%, 5% and 10% levels are denoted ***, ** and * respectively.

	(1) All	(2) Constrained	(3) Neutral	(4) Unconstrained
Top-Tier	0.1056*** (0.003)	0.1779** (0.020)	0.1147** (0.037)	0.0327 (0.523)
RUNUP	-0.1067** (0.011)	-0.0121 (0.850)	0.0334 (0.632)	-0.3086*** (0.001)
LN(MV)	-0.0094 (0.465)	-0.1147*** (0.001)	-0.0291 (0.308)	0.0238 (0.217)
M/B	-0.0130*** (0.006)	-0.0044 (0.498)	-0.0079 (0.388)	-0.0163* (0.061)
P/E	-0.0001 (0.699)	-0.0004 (0.440)	-0.0000 (0.948)	-0.0001 (0.903)
Leverage	0.1389* (0.075)	0.2549* (0.058)	0.0351 (0.770)	0.0073 (0.951)
ROE	-0.0733 (0.388)	0.0790 (0.582)	-0.0819 (0.566)	-0.2032 (0.230)
Cash Flows/Equity	0.8123*** (0.001)	0.5286 (0.243)	0.6373* (0.091)	1.5430*** (0.002)
Experienced Bidder	-0.0008 (0.982)	-0.0496 (0.398)	-0.0138 (0.810)	0.0308 (0.644)
Relative Size	0.0566 (0.272)	-0.0259 (0.756)	0.0493 (0.586)	0.1352 (0.133)
Public	0.0325 (0.365)	0.0714 (0.343)	0.0042 (0.940)	-0.0731 (0.166)
Stock	-0.0399 (0.383)	-0.0308 (0.657)	-0.0560 (0.504)	0.0588 (0.459)
Cash	0.0648** (0.046)	0.0737 (0.334)	0.1197** (0.033)	0.0050 (0.909)
Hostile	0.2876** (0.034)	0.6944 (0.340)	0.8373*** (0.004)	0.0232 (0.880)
Competing Bid	-0.1145 (0.242)	-0.5547*** (0.003)	0.0778 (0.717)	-0.0179 (0.867)
Tender	0.0201 (0.645)	-0.0060 (0.962)	0.0496 (0.542)	0.0140 (0.792)
Diversification	-0.0256 (0.435)	-0.0788 (0.209)	0.0204 (0.757)	-0.0228 (0.597)
Heat Degree	0.2060 (0.417)	0.3846 (0.404)	0.3410 (0.434)	-0.0153 (0.967)
High Valuation Market	0.0800 (0.176)	-0.0794 (0.461)	0.2330** (0.021)	0.0376 (0.689)
Low Valuation Market	-0.0082 (0.918)	-0.1529 (0.278)	-0.0044 (0.975)	0.0629 (0.567)
Constant	-0.6599** (0.022)	-0.0136 (0.981)	-0.7801 (0.114)	-0.7431 (0.114)
N	2771	934	922	915
R ²	0.103	0.154	0.139	0.178

Appendix 1: Top 25 U.S. Financial Advisor Ranking Based on Transaction Value

The table presents the ranking of the top-25 investment banker based on the transaction value for acquisitions of U.S. targets over the period January 1990 to December 31, 2009 obtained from the Thomson One Banker. Panel A and Panel B present the financial advisor ranking in the two decades – 1990s and 2000s, respectively. Transaction value is shown in U.S. million dollars.

Rank	Financial Advisor	Transaction Value	Number of Deals
Panel A: 1990 – 1999			
Top-Tier			
1	Goldman Sachs & Co	2,108,483.06	1,601
2	Bank of America Merrill Lynch	1,756,874.86	2,153
3	Morgan Stanley	1,669,074.77	1,338
4	JP Morgan	1,366,348.57	1,691
5	Credit Suisse	1,342,830.48	2,010
6	Citi (Salomon Brother/Salomon Smith Barney)	1,192,974.73	1,676
7	Barclays Capital (Lehman Brothers)	698,713.29	874
8	Lazard	613,378.80	568
9	UBS	435,536.00	1,018
10	Deutsche Bank AG	369,381.67	969
Non-Top-Tier			
11	Sagent Advisors Inc	240,950.63	183
12	Commerzbank AG	233,242.03	326
13	Allen & Co Inc	121,159.69	50
14	Houlihan Lokey	111,308.94	390
15	Gleacher & Co Inc	92,671.86	78
16	Blackstone Group LP	69,979.81	142
17	RBC Capital Markets	65,626.50	495
18	Evercore Partners	63,025.41	11
19	Societe Generale	59,085.45	103
20	Greenhill & Co, LLC	59,037.24	30
21	Rothschild	57,591.51	88
22	RBS	49,244.64	341
23	Keefe Bruyette & Woods Inc	43,877.64	233
24	CIBC World Markets Inc	43,771.35	205
25	Jefferies & Co Inc	42,621.50	544
Panel B: 2000 – 2009			
Top-Tier			
1	Goldman Sachs & Co	4,130,646.38	1,653
2	Morgan Stanley	3,069,775.38	1,299
3	Bank of America Merrill Lynch	3,025,483.53	1,931
4	JP Morgan	2,978,195.31	1,810
5	Citi (Salomon Smith Barney)	2,511,363.84	1,490
6	Credit Suisse	1,940,924.74	1,697
7	Barclays Capital (Lehman Brothers)	1,869,741.79	1,008
8	UBS	1,178,542.38	924

9	Lazard	1,002,150.94	843
10	Deutsche Bank AG	938,850.17	634
Non-Top-Tier			
11	Evercore Partners	681,438.52	173
12	Wells Fargo & Co	381,847.10	477
13	Commerzbank AG	356,887.07	138
14	Houlihan Lokey	354,513.98	1,375
15	Blackstone Group LP	304,486.73	127
16	Greenhill & Co, LLC	242,046.54	117
17	Sagent Advisors Inc	206,566.20	230
18	Jefferies & Co Inc	193,171.26	858
19	Rothschild	188,233.09	239
20	Duff and Phelps	184,790.02	457
21	BNP Paribas SA	174,201.15	42
22	Centerview Partners LLC	169,952.29	29
23	Moelis & Co	135,365.04	76
24	Keefe Bruyette & Woods Inc	134,706.73	443
25	Sandler O'Neill Partners	125,961.47	403

Appendix 2: Definitions of Control Variables

This table describes control variables in the regressions of this paper. The definition and related literature for each variable are shown in the table. Panel A, B and C present firm characteristics, deal characteristics and market characteristics, respectively.

Variable	Definition
Panel A: Firm Characteristics	
RUNUP	Acquirer market-adjusted CARs before announcement date over the [-365, -28] window.
LN(MV)	The logarithm of the acquirer market value measured 4 weeks before the announcement (CRSP item PRC×SHROUT).
M/B	Market value of equity 4 weeks before the announcement (CRSP item PRC×SHROUT) divided by book value of equity at the fiscal year end before the announcement (Compustat item CEQ).
P/E	Share price over earnings per share at the fiscal year end before the announcement (Compustat item PRCC/EPSPX).
Leverage	Total debt over total capital at the fiscal year end before the announcement (Compustat item (DTLL+DLC)/(DLTT+DLC+SEQ)).
ROE	Net income over shareholders' equity at the fiscal year end before the announcement (Compustat item NI/SEQ).
Cash Flows/Equity	Cash flows at the fiscal year end before the announcement (Compustat item IB+DP-DVP-DVC) divided by market value of equity 4 weeks before the announcement (CRSP item PRC×SHROUT).
Experienced Bidder	Dummy variable equals one if the acquirer who has conducted 3 or more M&A deals over the five years period before the acquisition in question.
Panel B: Deal Characteristics	
Relative Size	Transaction value (from Thomson One Banker) divided by the acquirer market value of equity 4 weeks before the announcement (CRSP item PRC×SHROUT).
Public	Dummy variable equals one if the target is a publicly listed firm.
Stock	Dummy variable equals one if the deal is 100% paid by stock.
Cash	Dummy variable equals one if the deal is 100% paid by cash.
Hostile	Dummy variable equals one if the deal attitude is identified as hostile or unsolicited by Thomson One Banker.
Competing Bid	Dummy variable equals one if there are more than one bidding firms reported by Thomson One Banker.
Tender Offer	Dummy variable equals one if the deal is identified as a tender offer by Thomson One Banker.
Diversification	Dummy variable equals one if the bidder and the target share the same first two-digit of primary SIC code.

Panel C: Market Characteristics	
M&A Heat Degree	The moving average of the number of M&A deals in each quarter divided by the historical average of the number of M&A deals in all previous quarters going back to 1985.
High Valuation Market ⁹	Dummy equals one if a deal is conducted in high valuation month.
Low Valuation Market	Dummy equals one if a deal is conducted in low valuation month.

⁹ To measure stock market valuation, this paper follows the method of Bouwman, Fuller, and Nain (2009). Specifically, this paper initially detrend the monthly P/E ratios of the S&P 500 from 1985 to 2009. Subsequently, each month is classified as below or above average base on whether the detrended P/E ratio of the month is lower or higher than the past five-year average. Finally, the lowest 50% of below average months are identified as “Low Valuation Market”, while the highest 50% of above average months are identified as “High Valuation Market”. The monthly P/E ratios of the S&P 500 are acquired from Datastream.